

## The Impact of Self-Efficacy on Nurses' Well-Being: Does Digital Competence Matter?

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**Purpose:** Drawing on person-environment fit theory and social cognitive theory, this study aimed to examine how self-efficacy affects nurses' workplace well-being via person-job fit and the moderating role of digital competence. **Methods:** A two-wave survey was conducted to collect data. Data were collected from six hundred and ninety-five nurses at three Chinese hospitals between May 2022 and September 2022. We employed hierarchical regression analysis and bootstrapping to analyze the data. **Results:** Self-efficacy positively influenced person-job fit ( $\beta = .55, p < .001$ ), which positively affected nurses' workplace well-being ( $\beta = .32, p < .001$ ). Person-job fit mediated the effect of self-efficacy on nurses' workplace well-being. Additionally, digital competence strengthened the positive impact of self-efficacy on person-job fit ( $\beta = .12, p < .001$ ). **Conclusion:** Recruiting nurses with both self-efficacy and digital competence benefits hospitals. It is critical for nurses to improve their digital competence for achieving person-job fit and attaining workplace well-being in the post-coronavirus disease 2019 (COVID-19) era.

**Key words:** Psychological Well-Being; Nursing; COVID-19

### INTRODUCTION

The United Nations has set 17 sustainable development goals (SDGs), including SDG3, which seeks to “ensure healthy lives and promote well-being for all at all ages” [1]. As an employee's positive perception and psychological status about work, workplace well-being is considered an essential part of social sustainability [2] and SDG3 [1]. After the coronavirus disease 2019 (COVID-19) pandemic exposed the vulnerability of healthcare systems and raised health awareness [3], nurses' role in contributing to human health and well-being has been highlighted [3,4]. As an important component of the global healthcare workforce, nurses have great potential to contribute to achieving SDGs in the post-

COVID-19 era [3]. Well-being may be a factor affecting nurses achieve health-related SDGs by preventing illness and caring for people who are physically and mentally ill or have disabilities (more specific roles can be found in [5]). However, despite the importance of well-being, knowledge on how to enhance nurses' well-being remains scarce.

Self-efficacy—referring to nurses' belief that they are capable of accomplishing their goals and successfully dealing with possible difficulties in the process—has been widely studied in the existing literature [6–9]. Several previous studies have explored the roles of self-efficacy in improving job performance [10], innovative performance [8], employee creativity [11], job satisfaction [12], and organizational citizenship behaviors [13]. However, the influence of self-effi-

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cacy on well-being has been overlooked. Social cognitive theory (SGT) suggests that self-efficacy may help nurses develop a positive psychological state by improving their commitment to work and resilience during the COVID-19 pandemic [14]. For example, nurses exhibiting higher self-efficacy would be more optimistic about achieving satisfactory performance. As a result, self-efficacy has been deemed positively related to nurses' well-being in the workplace.

Although SGT suggests that self-efficacy positively impacts workplace well-being, the underlying mechanisms remain unclear [14]. To address this research gap, we propose that one possible mediating mechanism is person-job fit, through which self-efficacy translates into improved well-being. Person-environment (PE) fit theory suggests two types of person-job fit: need-supply and demand-ability [15,16]. The former refers to the degree of matching between job demands and employees' knowledge, skills, and abilities. The latter is defined as the degree of matching between an employee's needs and wants and the rewards and supplies provided by the job. These two types of person-job fit depict the extent to which a nurse's abilities match a job's requirements or a nurse's needs match the job offerings [17]. According to PE fit theory, nurses with a higher degree of self-efficacy are more likely to achieve person-job fit [15]. Moreover, the existing literature suggests that person-job fit positively influences workplace well-being [18]. Hence, we examined the mediating role of person-job fit on the impact of self-efficacy on workplace well-being to clarify the mechanism of self-efficacy functions.

The second research gap lies in the fact that the existing literature fails to explain why nurses with similar self-efficacy may have distinct psychological cognitive outcomes. One possible reason for this is that the influence of self-efficacy on psychological cognitive outcomes may be contingent on contextual factors. For example, Gielnik et al. [6] suggested that the impact of self-efficacy on business ownership may be influenced by entrepreneurial intention. Schmidt & DeShon [19] also demonstrated that performance ambiguity affects the impact of self-efficacy on performance. Following this logic, it is necessary to examine the boundary conditions

affecting the self-efficacy-outcome link. Since our current knowledge regarding the conditions under which the effect of self-efficacy functions is still scant, this study explored the possible moderators that affect the impact of self-efficacy on person-job fit.

Digital competence refers to nurses' capability to utilize digital technologies [20]. Drawing on PE fit theory and SGT, digital competence may help nurses gain important information and resources and change their behaviors by adapting their cognition to the environment [20]. Nurses with high digital competence may be more proactive in accumulating resources and reducing job demand [21]. Furthermore, digital technologies are likely to help nurses better address the challenges that may arise during the COVID-19 pandemic [22]. Thus, the impact of self-efficacy on person-job fit is likely amplified when nurses use digital technology to communicate and learn. This finding suggests that nurses with higher levels of digital competence may be more strongly influenced by self-efficacy.

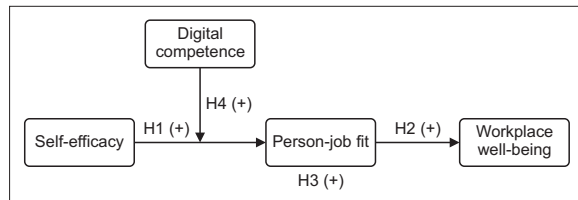
This study explored two research questions. First, does self-efficacy help achieve person-job fit, which subsequently enhances workplace well-being? Second, does digital competence strengthen the influence of self-efficacy on person-job fit? The answers to these questions may provide theoretical and managerial implications for improving the well-being nurses in medical organizations.

## METHODS

### 1. Research design and hypotheses

This study aimed to develop and examine an integrated model representing whether self-efficacy affects workplace well-being via person-job fit and the moderating role of digital competence. Figure 1 illustrates the conceptual model.

According to SGT, self-efficacy reflects nurses' confidence in realizing their goals [23] and may affect their mental perception, mindset, and behavior [14]. Nurses with higher self-efficacy put more effort into their work and show greater resilience when facing challenges and failures [14]. Accordingly, nurses with high self-efficacy are more likely to realize their desired goals, leading to a positive emotional



H1 = Self-efficacy has a positive impact on person-job fit; H2 = Person-job fit positively affects workplace well-being; H3 = Person-job fit mediates the effect of self-efficacy on workplace well-being; H4 = Digital competence positively moderates the effect of self-efficacy on job fit such the relationship is stronger when nurses have higher levels of digital competence.

**Figure 1.** The conceptual model of the present study.

state. As the PE fit theory suggests that person-job fit represents the degree to which a nurse and a job provide for others' needs [24], we propose that self-efficacy is conducive to achieving person-job fit for two main reasons [7]. First, self-efficacy helps nurses better match their abilities to job demands. Nurses with high self-efficacy tend to predict future job demands and prepare appropriate resources and information in advance [14]. For example, nurses with high self-efficacy may actively accumulate related knowledge and skills to increase their likelihood of successfully completing goals [25]. Thus, nurses with high self-efficacy are more confident in matching their abilities to job demands by regularly updating their resources and information [26]. In other words, self-efficacy is likely to help nurses better understand themselves and their jobs, which may enable them to achieve a better demand-ability fit.

Second, self-efficacy is conducive to obtaining a need-supply fit. Since nurses with high self-efficacy seek every possible method to complete their jobs, they generally feel less work stress [14]. SGT indicates that nurses with high self-efficacy may experience fewer challenges and failures, which, in turn, reduces criticism and censures from their supervisors [14]. Such nurses experience less negative moods (e.g., stress and fear) and decrease their own needs to better match personal needs with the job supply [15]. Moreover, nurses with higher self-efficacy are more proactive in performing their job duties and attempting to shape their needs and job supply to adapt to environmental changes

[27]. Accordingly, we propose the following hypothesis:

H1: Self-efficacy has a positive impact on person-job fit.

In this article, we define person-job fit as the exchange process between nurses' abilities and their job demands or between a nurse's needs and the what the job supplies [15,16]. The existing literature has acknowledged the importance of person-job fit in enhancing well-being [25], personal efficacy [28], satisfaction [14], and job search success [29]. SGT suggests that workplace well-being refers to nurses' subjective perceptions of their work content, working environment, and working experiences [30]. As person-job fit tends to help nurses adapt to their jobs, it is conducive to improving workplace well-being.

According to the PE fit theory, both demand-ability fit and needs-supply fit may enhance nurses' engagement and help them acquire more recognition, which may be conducive to improving the level of workplace well-being. First, nurses with high demand-ability fit are more likely to feel a sense of well-being in the workplace, involve themselves in the job, and perform their work smoothly [28]. Thus, these nurses are more inclined to receive recognition and praise from their supervisors, which may further improve their workplace satisfaction. Additionally, nurses with a high level of demand-ability fit exercise self-discipline over their behavior and performance to effectively adapt to their work and work environments, which may buffer against the negative effects of stress (e.g., burnout, tendency to leave) and improve job performance [31]. For example, these nurses diminish the stress generated by maladjustment, enabling them to achieve a high level of satisfaction and workplace well-being [32].

Second, needs-supply fit can help nurses improve their workplace well-being. Nurses with a high level of need-supply fit are more proactive in engaging in challenging jobs, which may enhance their workplace well-being [32]. For example, nurses with a high level of need-supply fit enjoy high levels of work engagement and motivation because they can obtain high salaries and enjoy good interpersonal relationships at work [25]. Thus, nurses with a high level of needs supply can actively find interest in their work and experience high workplace well-being compared with nurses with lower levels of needs supply. Based on this, we propose

the following:

H2: Person–job fit positively affects workplace well-being.

According to PE fit theory and SGT, we can draw several conclusions about the two types of person–job fit. First, nurses exhibiting high levels of self–efficacy are more motivated to accumulate resources and information to equip themselves to better meet job demands [14], which also changes their individual needs according to environmental conditions to match their personal needs with the job supply [15]. Second, person–job fit can improve nurses' familiarity and engagement with the job and decrease their work stress (e.g., heavy workload, job insecurity, and internal conflicts) [32]. Thus, person–job fit can be deemed an effective means for nurses to work effectively and acquire recognition from their supervisors, which may help them obtain a long-term sense of workplace well-being. Thus, person–job fit can be considered a good catalyst for translating self–efficacy into nurses' workplace well-being. Accordingly, we propose the following hypothesis:

H3: Person–job fit mediates the effect of self–efficacy on workplace well-being.

In the digital era, most nurses employ digital technologies to help them perform tasks better and faster [33]. The COVID–19 pandemic has further added significant strain to nurses, which negatively affects their well-being [34]. Digital competence is important for nurses to obtain resources, improve their skills, and communicate with patients and colleagues [35]. Additionally, functioning as an individual capability, digital competence is likely to facilitate nurses' engagement [36]. According to SGT, nurses with higher levels of digital competence are more innovative and demonstrate more confidence if they possess sufficient self–efficacy [37]. However, when nurses have low levels of digital competence, they feel more negative emotions (e.g., stress and frustration at work). This was especially during the COVID–19 pandemic [36]. Nurses who are not digitally competent are less likely to accumulate resources proactively and may experience more job demand [37]. In contrast, nurses with high levels of digital competence may exhibit goal-oriented behavior at work and display high levels of concentration and job adaptability and low turnover intention [38]. Thus, the

extent to which self–efficacy affects person–job fit seems to depend on the level of digital competence.

Nurses tend to interpret self–efficacy as the tendency to believe that they can accomplish tasks and realize desired goals, especially when they master digital competence [35]. According to PE fit theory, nurses are more likely to obtain sufficient resources required by their jobs when the level of digital competence is high [35]. For instance, digital technologies may help nurses perform their jobs more efficiently and better care for patients [39]. Hence, nurses with high digital competence tend to be more confident in their work. In addition, digital competence may help nurses overcome difficulties that may arise in their day-to-day work. Thus, nurses with a high level of digital competence can exert their self–efficacy better to achieve person–job fit [37]. Consequently, we propose the following hypothesis:

H4: Digital competence positively moderates the effect of self–efficacy on job fit such the relationship is stronger when nurses have higher levels of digital competence.

## 2. Setting and sampling

This study first developed a questionnaire based on the English literature. As we collected survey data from Chinese hospitals, we employed translation and back-translation approaches to reduce possible cross-cultural biases [40]. Prior to the formal survey, we conducted a pre-test using a sample of 32 nurses to further ensure the validity of our questionnaire. Based on this feedback, we modified and refined the measures.

We conducted the survey from May 6, 2022 to September 28, 2022. We contacted three hospitals in Beijing, Xi'an, and Jinan. In each hospital, we identified one human resource manager to help us distribute questionnaires to nurses in frontline departments, such as cardiology and rehabilitation. We also sent a cover letter introducing the purpose of the survey and promising anonymity.

To decrease the threat of common method bias (CMB), we conducted a two-stage survey with an interval of approximately three months [41]. At Time 1 (T1), we sent questionnaires to 1,000 nurses and requested they report their age, sex, working years, self–efficacy, digital competence,

and perceived person–job fit. We excluded 183 responses with excessive missing data and invalid information and retained 817 useful responses (response rate of 81.7%). At Time 2 (T2), 817 nurses were asked to provide information about workplace well-being. At this stage, 695 valid responses were received, corresponding to a response rate of 69.5%.

As shown in Table 1, 85.0% of the respondents were female (591 women), and only 15.0% were male (104 men). The average age was 31.11 years (standard deviation [SD] = 7.34), and the average number of working years in the hospital was 8.45 years (SD = 7.46), indicating that respondents were sufficiently knowledgeable to provide answers about the measures. Of the 695 responses, 13.2% were obtained from head nurses. Table 1 presents details on the responses from

**Table 1.** Characteristics of Responses

Characteristics	n	%
Sex		
Female	591	85.0
Male	104	15.0
Age (yr)		
≤ 25	134	19.3
26~30	285	41.0
31~40	189	27.2
41~50	77	11.1
> 50	10	1.4
Working years in the hospital		
< 5	252	36.2
5~9	234	33.7
10~20	139	20.0
> 20	70	10.1
Position		
Head nurse	92	13.2
Others	603	86.8
Department		
Cardiology	85	12.2
Gastroenterology	79	11.4
Rehabilitation	113	16.3
Obstetrics and gynecology	76	10.9
Pediatrics	62	8.9
Neurology	97	14.0
Orthopedics	46	6.6
Neurosurgery	51	7.3
Oncology	45	6.5
Others	41	5.9

the various departments.

### 3. Measurements

We developed the measures based on the results of previous studies. Since 7-point rating scales are more likely to reflect a respondent's true thoughts, we asked respondents to rate the measures on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

#### 1) Self-efficacy

Self-efficacy was assessed with six measures adopted from Rigotti et al. [42]. These six items reflected respondents' belief in their ability to achieve goals and address challenges that they may encounter in the process of pursuing goals. A sample item is "My past experiences in my job have prepared me well for my occupational future."

#### 2) Person-job fit

Person-job fit was evaluated with four items adopted from Lauver & Kristof-Brown [17]. This scale measured the extent to which a nurse's characteristics (e.g., abilities, skills and temperament) match the job requirements. A sample item is "My personality and temperament match my work."

#### 3) Digital competence

Digital competence was assessed using eight measures adapted from Antonietti et al. [35]. These eight items were used to evaluate the capability of nurses using digital technologies. Sample items included: "I use digital technologies to communicate with patients".

#### 4) Workplace well-being

Workplace well-being was measured using six items adopted from Zheng et al. [43]. To measure workplace well-being, nurses were asked to reflect on their previous work experiences and clarify their degree of satisfaction with the content of their work, work environment, and perception of the meaning of their work. A sample item is "Work is a meaningful experience for me."



#### 4. Control variables

Since employees' demographic variables (i.e., gender, age and working years) may affect nurses' workplace well-being [25,43], we controlled them. Age was assessed using the log of age, working years were evaluated with the log of years of work experience, and gender was evaluated employing a dummy variable (0 = "female," 1 = "male").

#### 5. Data analysis

To examine the validity of our hypotheses, we conducted an analytical process in several steps. First, SPSS 26.0 (IBM Co., Armonk, NY, USA), LISREL 8.53 (Scientific Software International, Inc., Cincinnati, OH, USA) were applied to perform a confirmatory factor analysis (CFA) to explore the reliability and validity of the scales. Specifically, LISREL 8.53 was used to assess factor loadings, composite reliability (CR), and average variance extracted (AVE). IBM SPSS 26.0 was used to evaluate Cronbach's  $\alpha$  coefficient and conduct a correlation analysis. Second, LISREL 8.53 was employed to examine the possible influence of CMB. Finally, we conducted a hierarchical regression analysis using SPSS 26.0 to examine the hypotheses. PROCESS (IBM SPSS 26.0) was used to further validate the mediating effects. We drew an interaction effect plot to elucidate the moderating effect.

#### 6. Ethical considerations

This study was approved by the Academic and Ethics Committee of Harbin Institute of Technology (Weihai) (approval no. 2022007). Written informed consent was obtained from all participants and their anonymity was ensured.

## RESULTS

### 1. Measurement model

We first assessed the scales' reliability using Cronbach's  $\alpha$  and CR values. Table 2 presents the results of CFA. The Cronbach's  $\alpha$  and CR value of each scale were above 0.80 and 0.60 respectively, suggesting a high degree of internal consistency. Consequently, satisfactory reliability was ensured.

**Table 2.** Results of Confirmatory Factor Analysis

Construct	Item	Factor loading	AVE	Cronbach's $\alpha$	CR
SE	SE1	0.93	0.74	0.98	0.95
	SE2	0.96			
	SE3	0.94			
	SE4	0.92			
	SE5	0.94			
	SE6	0.95			
DC	DC1	0.89	0.65	0.97	0.96
	DC2	0.82			
	DC3	0.90			
	DC4	0.93			
	DC5	0.94			
	DC6	0.93			
	DC7	0.94			
	DC8	0.86			
PJF	PJF1	0.51	0.70	0.85	0.90
	PJF2	0.91			
	PJF3	0.93			
	PJF4	0.93			
WWB	WWB1	0.82	0.70	0.92	0.93
	WWB2	0.56			
	WWB3	0.89			
	WWB4	0.88			
	WWB5	0.90			
	WWB6	0.91			

SE = Self-efficacy; DC = Digital competence; PJF = Person-job fit; WWB = Workplace well-being; AVE = Average variance extracted; CR = Composite reliability.

Second, we assessed the constructs' validity. Each construct was developed by widely reviewing previous literature; thus, content validity was assured. Convergent and discriminant validities were then checked by conducting a CFA. The indices derived indicated that the model fit was acceptable: ( $\chi^2 = 1,930.05$ , degree of freedom [d.f.] = 246, root mean square error of approximation (RMSEA) = 0.08, non-normed fit index (NNFI) = 0.95, comparative fit index (CFI) = 0.96, and standardized root mean square residual (SRMR) = 0.028). Each factor loading in Table 2 is significant and above the threshold value of 0.50, indicating acceptable convergent validity. Convergent validity was also evaluated using the AVE values. The results in Table 2 reveal that all AVE and CR values exceeded 0.50 and 0.70, respectively, which further suggests sufficient convergent validity.

**Table 3.** Means, Standard Deviations, Correlations, and Discriminant Validity

Variables	Mean	SD	AG	GE	WY	SE	PJF	DC	WWB
AG	3.41	0.22	-						
GE	0.15	0.36	0.11**	-					
WY	1.76	0.91	0.84***	0.03	-				
SE	5.31	1.14	-0.08*	-0.05	-0.07	0.86 <sup>†</sup>			
PJF	5.11	1.20	-0.07	0.02	-0.08*	0.55***	0.91 <sup>†</sup>		
DC	5.04	1.13	-0.11**	0.01	-0.11**	0.57***	0.66***	0.80 <sup>†</sup>	
WWB	5.30	1.06	-0.03	0.03	-0.03	0.28***	0.32***	0.38***	0.84 <sup>†</sup>

SD = Standard deviation; AG = Age; GE = Gender; WY = Working years; SE = Self-efficacy; PJF = Person-in-job; DC = Digital competence; WWB = Workplace well-being.

<sup>†</sup>On the diagonal indicate the square root of average variance extracted.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

We verified discriminant validity by contrasting the square root of the AVE with the correlation coefficient between the two constructs [44]. The results presented in Table 3 reveal that each square root of the AVE was above the correlation between that construct and the others. Thus, discriminant validity was guaranteed.

## 2. Common method bias

We addressed concerns regarding CMB using several methods. First, we collected two-wave data to test our hypotheses. Second, exploratory factor analysis suggested four factors, and no factor could explain more than half of the total variance. Third, Harman's one-factor test using CFA revealed that the four-factor model was more satisfactory than the single-factor model: ( $\chi^2/d.f. = 60.535$ ,  $RMSEA = 0.29$ ,  $NNFI = 0.76$ ,  $CFI = 0.78$ , and  $SRMR = 0.17$ ). Therefore, CMB was not a severe problem.

## 3. Tests of the hypothesized model

We used hierarchical regression analysis to test the hypotheses. We first examined the Durbin-Watson value and variance inflation factor (VIF) of each model. All Durbin-Watson values were close to 2.00, and the VIF scores were below 10.00 (Max = 3.56, Min = 1.01), which indicates that multicollinearity and autocorrelation were not serious problems. We then examined the influence of self-efficacy on workplace well-being and person-job fit, followed by the mediating effect of person-job fit. Finally, to reduce the possible influence of multicollinearity, we built an interaction

term after mean-centering the independent and moderator variables. Table 4 presents the regression results.

H1 predicted that self-efficacy would positively affect person-job fit. Model 6 in Table 4 reveals that self-efficacy has a significant positive impact on person-job fit ( $\beta = .55$ ,  $p < .001$ ). Thus, H1 is supported. H2 hypothesizes that person-job fit positively affects workplace well-being. Model 3 in Table 4 demonstrates that person-job fit has a significant positive impact on workplace well-being ( $\beta = .32$ ,  $p < .001$ ). Thus, H2 is supported.

H3 proposed that person-job fit mediates the influence of self-efficacy on workplace well-being. As indicated in Models 2 and 6, self-efficacy significantly affected person-job fit ( $\beta = .55$ ,  $p < 0.001$ ) and workplace well-being ( $\beta = .28$ ,  $p < .001$ ). Furthermore, Model 4 in Table 4 reveals that although the impact of self-efficacy on workplace well-being remains significant ( $\beta = .15$ ,  $p < .001$ ) after considering the influence of person-job fit, the impact decreases. Hence, self-efficacy is likely to affect workplace well-being partially via person-job fit, which provides empirical evidence for H3.

To further examine the mediating effect of person-job fit, we conducted bootstrapping tests using PROCESS in IBM SPSS 26.0. The bootstrapping results indicate that the 95% confidence intervals are  $BootLLCI = 0.07$  and  $BootULCI = 0.18$  and do not contain zero. Consequently, we conclude that person-job fit mediates the impact of self-efficacy on workplace well-being. This finding further supports H3.

H4 hypothesized that digital competence intensifies the impact of self-efficacy on person-job fit. Specifically, the

**Table 4.** The Impacts of Self-Efficacy on Workplace Well-Being and Person-Job Fit

Variables	Workplace well-being				Person-job fit			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Control variables								
Gender	0.03	0.04	0.02	0.03	0.02	0.04	0.02	0.01
Age	- 0.02	- 0.01	- 0.01	- 0.01	- 0.01	0.02	0.03	0.03
Working years	- 0.02	- 0.01	0.00	0.00	- 0.07	- 0.06	-0.03	-0.03
Independent variable								
SE		0.28 <sup>***</sup>		0.15 <sup>***</sup>		0.55 <sup>***</sup>	0.25 <sup>***</sup>	0.27 <sup>***</sup>
Mediator								
Person-job fit			0.32 <sup>***</sup>	0.23 <sup>***</sup>				
Moderator								
DC							0.52 <sup>***</sup>	0.50 <sup>***</sup>
Interaction effect								
SE × DC								0.12 <sup>***</sup>
R <sup>2</sup>	0.00	0.08	0.10	0.12	0.01	0.31	0.48	0.50
ΔR <sup>2</sup>	-	0.08	0.10	0.12	-	0.30	0.18	0.02
F value	0.49	14.94 <sup>***</sup>	19.30 <sup>***</sup>	18.23 <sup>***</sup>	1.61	75.77 <sup>***</sup>	129.39 <sup>***</sup>	114.18 <sup>***</sup>

SE = Self-efficacy; DC = Digital competence.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

positive impact is more significant under a higher level of digital competence. In Model 8, the interaction term between self-efficacy and digital competence is significant and positively related to person-job fit ( $\beta = .12, p < .001$ ). Thus, digital competence heightens the impact of self-efficacy on person-job fit, supporting H4.

## DISCUSSION

The COVID-19 pandemic has brought great challenges to nurses who work on the front lines of epidemic prevention and control. As a consequent, there has been increased health awareness and significant shocks to existing health-care systems, thus highlighting the need to commit to the UN SDGs in the short and long term [3,5]. Additionally, the COVID-19 pandemic has decreased nurses' well-being [3]. Thus, improving nurses' well-being during the post-COVID-19 pandemic era is critical. This study provides theoretical and practical guidelines to help nurses overcome the challenges of the COVID-19 pandemic.

## 1. Theoretical implications

The first contribution of this study is that, drawing on PE fit theory and SGT, it provides empirical evidence of how self-efficacy influences workplace well-being. Although previous studies have suggested several outcomes of self-efficacy [8,10-13], its impact on workplace well-being has been neglected. Additionally, the mechanism by which self-efficacy helps achieve these outcomes remains unclear [14]. Our findings contribute to the literature by revealing that nurses with high self-efficacy are likely to achieve greater workplace well-being through person-job fit. Thus, this article responds to the call to unpack the "black box" in which self-efficacy affects workplace well-being by uncovering the mediating role of person-job fit [45].

Second, we contribute to the self-efficacy literature by identifying digital competence as an individual resource and subsequently examining whether and how it moderates the impact of self-efficacy on person-job fit. Although the existing literature indicates that the effectiveness of self-efficacy is dependent on some contingent factors [6,19], our knowledge of the conditions under which self-efficacy can enhance



nurses' well-being is scarce. Our findings suggest that nurses with high self-efficacy and digital competence are more inclined to achieve reasonable matches between individuals and jobs. Thus, this study provides novel insights into how self-efficacy and digital competence jointly affect person-job fit.

Third, our findings extend the literature on self-efficacy and workplace well-being to clinical practice in the context of the SDGs. The COVID-19 pandemic poses a serious threat to the nurses' well-being owing to the challenges associated with health concerns, caregiving burden, and quarantine-related stress [3]. Thus, how to safeguard their well-being deserves more attention. Although several studies have investigated the antecedents of well-being, our knowledge of nurses' well-being remains limited. Our findings indicated that nurses can be attuned to hospital work and perceive higher levels of workplace well-being if they have high levels of self-efficacy. In addition, digital competence could enable nurses to better utilize their self-efficacy and help them achieve a person-job fit.

## 2. Practical implications

Our findings reveal that recruiting nurses with both self-efficacy and digital competence may favor organizations because these two variables jointly affect person-job fit. Person-job fit further helps enhance workplace well-being, which is particularly important if hospitals are pursuing SDGs. Therefore, to improve nurses' well-being, hospitals should work toward achieving a good fit between nurses' abilities and needs and job demands and supply [21]. Nurses with self-efficacy and digital competence are more likely to achieve this fit by self-adjusting to update their knowledge, information, and skills and proactively engaging in job-related activities [22].

Second, digital competence helps nurses translate self-efficacy into an improved person-job fit and workplace well-being. It appears that self-efficacy and adaptation to the environment are not always sufficient for achieving desirable outcomes. This study indicates that only when nurses with self-efficacy have a high level of digital competence will their self-efficacy be translated into something that can improve

their person-job fit and workplace well-being. Thus, hospitals should recruit nurses with digital competence according to the requirements of different positions. Hospitals should also provide personalized training programs according to different developmental needs to improve digital competence. Furthermore, nurses should be aware of the importance of digital competence in helping them convert self-efficacy into workplace well-being.

## 3. Limitations and future directions

This study enriches the existing literature on workplace well-being in the context of SDGs and provides insightful managerial suggestions for enhancing nurses' well-being. However, it has several limitations. First, this study used two-wave data, which may hinder us from exploring how workplace well-being evolves with changes in self-efficacy. Thus, a longitudinal study is required to understand the evolution of workplace well-being, especially in the post-COVID-19 pandemic era. Furthermore, although several checks suggest that CMB is not a concern, our findings can be revalidated by collecting data from multiple sources.

Second, the data employed in this study are collected from nurses working in different departments and in distinct positions. Nurses' emotions and behaviors may differ across diverse departments and positions, which is likely to influence the generalizability of our findings. Future studies should investigate the impact of departments and positions to provide novel insights into their differences.

Third, although several contingency factors influencing the impact of self-efficacy on outcomes have been suggested [12], this study only examined the moderating role of a variable at the individual level (i.e., digital competence), which affects the influence of self-efficacy on person-job fit. Multi-level research should be conducted to explore the roles of team- and organizational-level contingency factors (e.g., team climate, ethical leadership, and organizational justice) in the influence of self-efficacy on person-job fit.

Finally, this study focused solely on the positive outcomes of self-efficacy. However, self-efficacy may be deemed a double-edged sword under certain circumstances. For example, if an employee's goal differs from that of the organi-

zation, self-efficacy is likely to result in negative consequences. Future studies should investigate both the positive and negative consequences of self-efficacy. The influence of self-efficacy on other SDGs should also be explored in future studies.

## CONCLUSION

This study examined the influence of self-efficacy on workplace well-being, the mediating effect of person-job fit, and the moderating effect of digital competence. Based on two-wave survey data from 695 nurses in China, our findings reveal that person-job fit mediates the impact of self-efficacy on workplace well-being. Additionally, digital competence strengthens the influence of self-efficacy on person-job fit. Our results have both theoretical and practical implications by revealing the mediating role of person-job fit and uncovering the boundary conditions under which self-efficacy enhances nurses' well-being during the post-COVID-19 pandemic era.

## CONFLICTS OF INTEREST

The authors declared no conflict of interest.

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None.

## DATA SHARING STATEMENT

Please contact the corresponding author for data availability.

## AUTHOR CONTRIBUTIONS

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Funding acquisition: None.

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Validation: Yang X.

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